Attachment B

In the Claims:

1. (original) A system for inputting operation system (OS) commands to a data processing device comprising:

(a) a video camera capturing images of a viewing space; and

(b) a processor configured to:

i) detect a predetermined object in one or more images obtained by the camera using an object recognition algorithm not involving background information in an image;

ii) extract one or more image analysis parameters of the object in the one or more images obtained by the camera; and

iii) for each of one or more motion detection tests:

(I) applying the motion detection test to image analysis parameters extracted during a recent time window; and

(II) executing an operating system command associated with the motion detection test if the motion detection test succeeds.

2. (original) The system according to claim 1 wherein detecting a predetermined object in one or more images obtained by the camera is carried out using a segmentation algorithm.

3. (original) The system according to claim 1 wherein the predetermined object is a finger or a stylus.

4. (original) The system according to claim 1 wherein one or more of the image analysis parameters is history independent.

5. (original) The system according to claim 1 wherein one or more of the image analysis parameters is history dependent.

6. (original) The system according to claim 1 wherein one or more of the image analysis parameters is selected from

(a) a location of a tip of the object in an image;

(b) a width of the object in an image;

(c) a length of the object in an image;

(d) an orientation of the object in an image;

(e) a speed of the object at a time the image was obtained by the camera;

(f) a change in the a width of the object at a time the image was obtained by the camera;

(g) a rate of rotation of the object at a time the image was obtained by the camera;

(h) an image analysis parameter having a first value if the object is detected in the image and a second value if the object is not detected in the image.

7. (original) The system according to claim 1 wherein one or more of the motion detection tests is a motion detection test detecting a motion selected from:

(a) during the time window the object approached the camera;

(b) during the time window the object moved away from the camera;

(c) during the time window the object first approached the camera and then moved away from the camera;

(d) during the time window the object disappeared from the viewing space of the camera;

(e) during the time window the object moved in a predetermined path;

(f) during the time window the object rotated,

(g) during the time window the object was stationary,

(h) during the time window the object moved;

(i) during the time window the object performed a flicking motion;

(j) during the time window the object accelerated;

(k) during the time window the object decelerated;

(l) during the time window the object moved and then stopped.

8. (original) The system according to claim 7 wherein one or more of the motion detection tests is a motion detection test detecting that the object moved in a predetermined path during the time window.

9. (currently amended) The system according to ~~any one of the previous claims~~ claim 1 wherein one or more of the OS commands is selected from:

(a) depressing a virtual key displayed on a screen;

(b) moving a curser appearing on a screen

(c) running on the processor a software application;

(d) turning alight on or off;

(e) turning off the system;

(f) zooming in or out of a picture on a screen;

(g) adjusting a radio or other entertainment device;

(h) adjusting a medical device; and

(i) sending a command to an application.

10. (currently amended) A data processing device comprising the system for inputting operation system (OS) commands according to ~~any one of the previous claims~~ claim 1.

11. (original) The data processing device according to claim 10 selected from a personal computer (PC), a portable computer, a PDA, a laptop, a palm plot, or mobile telephone, a radio, a digital camera a vehicle, a medical device, a smart home appliance, and a mobile game machine.

12. (original) A method for inputting operation system (OS) commands to a data processing device having a video camera capturing images of a viewing space, comprising:

(a) detecting a predetermined object in one or more images obtained by the camera using an object recognition algorithm not involving background information of an image;

(b) extracting one or more image analysis parameters of the object in the one or more images obtained by the camera ; and

(c) for each of one or more motion detection tests:

i) applying the motion detection test to image analysis parameters extracted during a recent time window; and

ii) executing an operating system command associated with the motion detection test if the motion detection test succeeds.

13. (original) The method according to claim 12 wherein detecting a predetermined object in one or more images obtained by the camera is carried out using a segmentation algorithm.

14. (original) The method according to claim 12 wherein the predetermined object is one or more fingers or a stylus.

15. (currently amended) The method according to ~~any one of Claims 12 to 14~~ claim 12 wherein one or more of the image analysis parameters is history independent.

16. (currently amended) The method according to ~~any one of Claims 12 to 14~~ claim 12 wherein one or more of the image analysis parameters is history dependent.

17. (original) The method according to claim 12 wherein one or more of the image analysis parameters is selected from

(a) a location of a tip of the object in an image;

(b) a width of the object in an image;

(c) a length of the object in an image;

(d) an orientation of the object in an image;

(e) a speed of the object at a time the image was obtained by the camera;

(f) a change in the a width of the object at a time the image was obtained by the camera;

(g) a rate of rotation of the object at a time the image was obtained by the camera;

(h) an image analysis parameter having a first value if the object is detected in the image and a second value if the object is not detected in the image.

18. (currently amended) The method according to ~~any one of Claims 12 to 17~~ claim 12 wherein one or more of the motion detection tests is a motion detection test detecting a motion selected from:

(a) during the time window the object approached the camera;

(b) during the time window the object moved away from the camera;

(c) during the time window the object first approached the camera and then moved away from the camera;

(d) during the time window the object disappeared from the viewing space of the camera;

(e) during the time window the object moved in a predetermined path;

(f) during the time window the object rotated,

(g) during the time window the object was stationary,

(h) during the time window the object moved;

(i) during the time window the object performed a flicking motion;

(j) during the time window the object accelerated;

(k) during the time window the object decelerated;

(l) during the time window the object moved and then stopped.

19. (original) The method according to claim 18 wherein one or more of the motion detection tests is a motion detection test detecting that the object moved in

a predetermined path during the time window, wherein the predetermined path traces an alphanumeric character.

20. (currently amended) The method according to ~~any one of Claims 12 to 19~~ claim 12 wherein one or more of the OS commands is selected from:

(a) depressing a virtual key displayed on a screen;

(b) moving a curser appearing on a screen

(c) running on the processor a software application;

(d) turning alight on or off;

(e) turning off the system.

(f) zooming in or out of a picture on a screen;

(g) adjusting a radio or other entertainment device;

(h) adjusting a medical device; and

(i) sending a command to an application.

21. (original) A program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform method steps for inputting operation system (OS) commands to a data processing device having a video camera capturing images of a viewing space, the method comprising:

(a) detecting a predetermined object in one or more images obtained by the camera using an object recognition algorithm not involving background information of an image;

(b) extracting one or more image analysis parameters of the object in the one or more images obtained by the camera ; and

(c) for each of one or more motion detection tests:

i) applying the motion detection test to image analysis parameters extracted during a recent time window; and

ii) executing an operating system command associated with the motion detection test if the motion detection test succeeds.

22. (original) A computer program product comprising a computer useable medium having computer readable program code embodied therein for inputting operation system (OS) commands to a data processing device having a video camera capturing images of a viewing space, the computer program product comprising:

computer readable program code for causing the computer to detect a predetermined object in one or more images obtained by the camera using an object recognition algorithm not involving background information of an image;

computer readable program code for causing the computer to extract one or more image analysis parameters of the object in the one or more images obtained by the camera ; and

computer readable program code for causing the computer, for each of one or more motion detection tests,:

to apply the motion detection test to image analysis parameters extracted during a recent time window; and

to execute an operating system command associated with the motion detection test if the motion detection test succeeds.

23. (currently amended) A computer program comprising computer program code means for performing all the steps of any one of ~~Claims 12 to 20~~ claim 12 when said program is run on a computer.

24. (original) A computer program as claimed in claim 24 embodied on a computer readable medium.